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La Société Cockerill

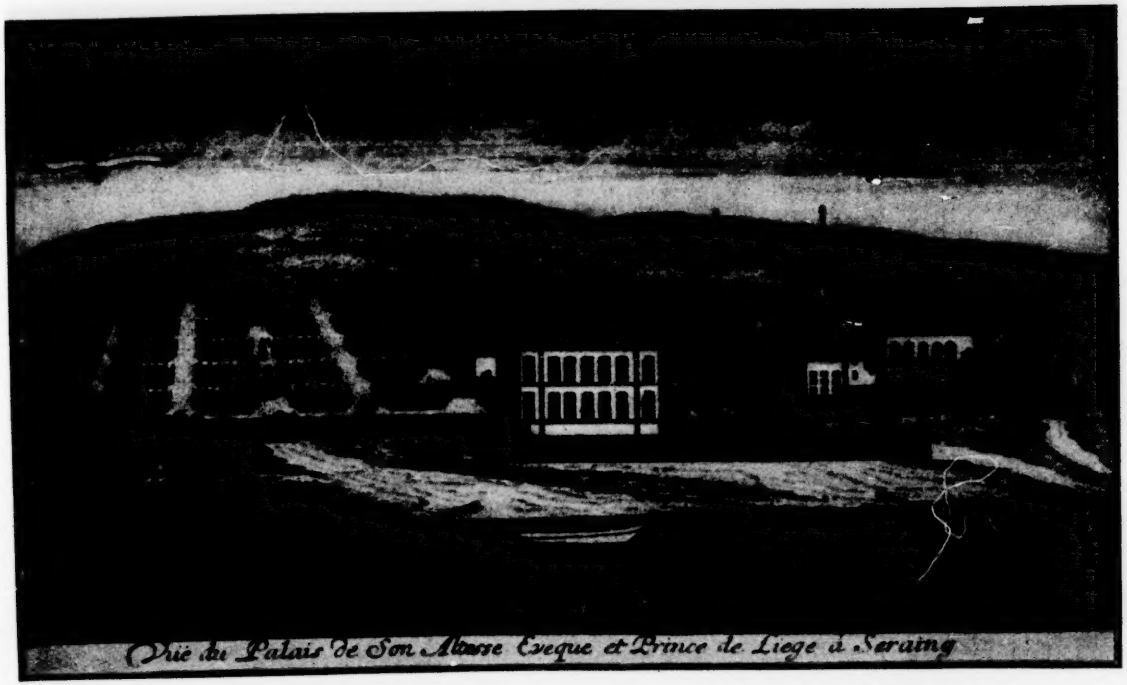
1817–1927

MENTION has already been made in the Bulletin of the unusual collection of material which has been coming to the Society in the form of anniversary publications which are being put out by various companies. One such publication of special interest was the history of a Belgian company, La Société Cockerill, noted particularly for the manufacture of locomotives and other machinery.

We learn from this company history that William Cockerill, an English wool worker, despairing of earning his living in England, went to Sweden in 1797 with the idea of introducing into that country the woolen weaving processes of his native land. He was disappointed by lack of success and in 1799 went to Belgium, where he secured the exclusive contract to make machinery for weaving wool for one of the leading wool manufacturers there. He made machines for this company with great success. His methods were so advanced that he was able to do this with a considerable saving in the number of men employed in the factory.

Later, Cockerill and his three sons set up a family workshop in Liége, at first on a small scale, but soon they were forced to enlarge the plant. When the shop passed into the sons' hands after the father's death, the establishment was employing 500 iron workers and 1500 carpenters.

Of the three Cockerill brothers, John, the youngest, proved to be the guiding spirit. When the use of steam as power brought about complete revolution in the kind of material used for machines he was quick to see the importance of the change. Consequently, he chose Seraing in Belgium as the best place for a factory, having



SITE CHOSEN BY JOHN COCKERILL IN 1817 FOR HIS FACTORY AT SERAING

coal, iron, easy transportation and a population used to working in coal and iron. On January 29, 1817, the Cockerill brothers purchased from King William I the château of Seraing, near Liége, and there built a factory for the manufacture of machines which could compete with the English machines then holding a monopoly of the market. It is from the establishment of the factory at Seraing that the Société Cockerill dates its beginning.

Cockerill took with him to his new factory some of his old workmen from Liége and imported a few specialists from England who were familiar with the building of machines to be run by steam power.

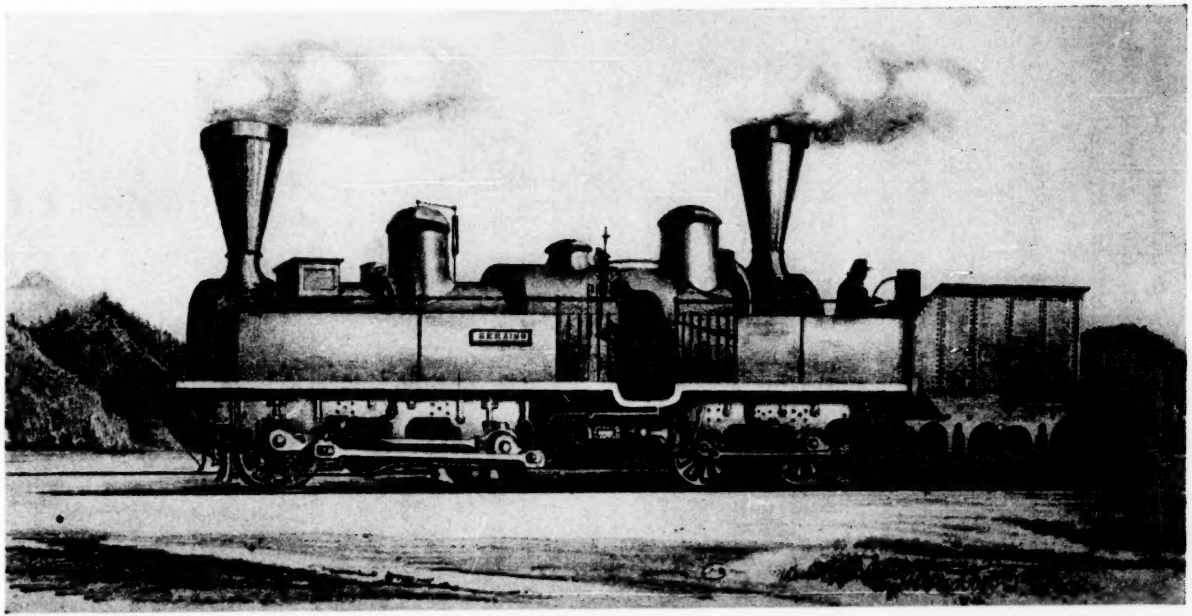
In 1823 John became the sole proprietor of the works. He installed the first coke blast furnace in the district. He had his own iron, coal, and coke, made his own charcoal, and carried on all the processes of machinery making in one plant. In 1825 the Belgian government acquired a large interest in the company. After this, the Seraing factory manufactured ammunition as well as machinery.

In 1834, the introduction of railroads into Belgium increased the importance of the Cockerill establishment. Cockerill made the first rails and constructed the first locomotive in Belgium. This first locomotive was not so very different from those of today in principle. It was supplied with a tubular boiler for steam, below which was constructed a rectangular firebox. The boiler was heated by a coke fire and was protected against cooling by a cover made of wooden hoops. A steam pressure of four atmospheres was achieved. The wheels were fastened on axles which turned in grease boxes. The entire weight of this early locomotive was 8,700 kilos.

With the introduction of the production of locomotives at Seraing a further enlarging of the factory took place. A second blast furnace was installed as well as a boiler factory. The Cockerill factory had become not only the leading industrial establishment in Belgium, but had secured a place for itself in world industry as well.

The Seraing factory, however, was not the only activity carried on by Cockerill. At Sclessin he ran a boiler factory; at Tilleur a cast iron forge; at Andenne a cotton print works; and at Aix-la-Chapelle a woolen mill. Besides these he had workshops in Germany and Spain as well. He received royal decorations from Leopold of Belgium and many honors were bestowed upon him by other rulers.

Unfortunately the financial crisis of 1837 and the years following, which affected the entire world, paralyzing industrial operations,



LOCOMOTIVE BUILT IN 1850 BY LA SOCIÉTÉ COCKERILL TO OVERCOME THE STEEP GRADES OF THE SEMMERING PASS

almost ruined Cockerill. This came just at a time when he was undertaking the tremendous job of building a railroad from Paris to the Belgian frontier. He died at the age of fifty while in Russia, where he was seeking a market for his goods.

After his death the affairs of the company were taken over by a group of directors; Gustave Pastor, nephew of John Cockerill, was made chairman. The plant was again enlarged and new machinery added. In 1844 a third and then a fourth large blast furnace was erected. The plant was producing both locomotives and steam boats as well, as other machinery. But the Belgian iron industry was having a difficult time holding its own against the combined rivalry of German and English production, and 1848 brought another period of depression due to political revolution.

In 1850 the board of directors of the company planned the construction of a locomotive to participate in the contest organized by the Austrian government for building a locomotive capable of overcoming the steep grades and successfully traversing the route through the pass of Semmering, situated between Austria and Styria on the railroad from Vienna to Trieste. In this project the Seraing factory was successful.

In 1851 the factory at Seraing set up a new foundry for the manufacture of smelted steel into machinery. The company was the first to contract the English engineer Bessemer, with a view to introducing his process for the manufacture of steel into Belgium. Experiments in this connection covered a period of ten years and finally La Société Cockerill was forced to make enormous sacrifices in producing Bessemer steel at a loss, in order to introduce it to the market.

The Cockerill organization has always followed the forward looking policy which characterized its beginnings. It continues to be one of the foremost companies of Belgium and recognized throughout the world as a strong industrial organization.

Textile Material Again

FROM time to time articles have appeared in the Bulletin indicating the wealth of manuscript material on the textile industry which has been brought together at Baker Library. Not long ago there was discovered, tucked away in a fine collection on the Baltimore and Ohio Railroad, a very small but unique group of manuscripts on the early history of the textile industry. In 1927 the Maryland Historical Society deposited with Baker Library material relating to the building of the Baltimore and Ohio Railroad, known as the Stabler Collection. James P. Stabler was chief engineer for the building of the road, and the letters, accounts, reports, etc., that had been in his possession make up this collection. In addition to this material is a very small but interesting group of papers which had belonged to Isaac Briggs, uncle of James P. Stabler.

Isaac Briggs, from the records which we have, seems to have been a man of considerable talent, but one who somehow lacked the capacity to bring his numerous projects and opportunities to successful development. He was at one time appointed by President Jefferson to survey the Mississippi Territory and at another time he seems to have been selected by Governor DeWitt Clinton and the Erie Canal Commissioners as chief engineer of the Erie Canal, yet this position he never actually filled. What happened between the time of his appointment and the actual starting of the work is not known.

The Isaac Briggs manuscripts relative to the textile industry are very few. They comprise two pocket notebooks, one long letter, and two carefully worked-out estimates for the establishment of a textile factory, first in Maryland and later in Georgia.

One of the notebooks starts with the complete and minute "account of expenses on a journey from Brooksville in Maryland to Pennsylvania, New Jersey, New York, Connecticut, etc. to obtain information on the subject of manufactures."

Fortunately information is included which is of far greater importance than mere "expenses." He started from his home on the ninth of August, 1807. He passed through Baltimore and Philadelphia and on to Mendham, New Jersey, where he visited the textile mills of John Ralston in connection with which he writes: "Found John Ralston hospitable, candid, liberal, enterprising, and communicative. Thoroughly examined his Cotton Factory, con-

sisting of two mules, one of 136, and the other of 144 spindles, and other machinery in proportion; all, except the Batting frame, Reels and Looms worked by water. He informed me that his two mules (selling his manufacture *in yarn*) yielded him 10 dollars per day *clear profit*. He gave me a sketch of such a factory as he means immediately to erect of 4 mules, carrying 576 spindles.

"Visited, and conversed with, Daniel Dod, Post-master at Mendham, N. J. and one of the makers of Ralston's Machinery. I am impressed with a belief that he is a worthy, honest man. I saw him at work in his shop, making clock-wheels. He appears to be modest and industrious, and uncommonly ingenious and handy."

From Mendham he went to New York where he entered the following in his notebook: "Went with Robert Fulton to view his Steam-Boat. The Steam Engine appears to be a very complete one, on Watt's principles. The boat is about 140 feet long . . . and draws, when loaded with the Engine only, about 2 ft. He says it moves regularly at the rate of 4½ or 5 miles per hour through standing water.

"Went to see the Card-Factory of Samuel Whittemore & Co. (No. 100 Wall Street, N. Y.). This is a very curious and ingenious machine, which a girl keeps in constant operation, by turning a small crank or winch. The machine draws the wire from a Reel, cuts it off, bends it, punctures the leather, and sets completely in their places, 160 pair of Card-teeth per minute."

From New York he proceeded to Norwich, Connecticut, where he says: "I went with Nath[l]. Howland to view his Factory of sail-duck. He has 6 water frames of 18 Spindles, or Flyers each, in all 108 Spindles, each frame cost $500. He engages to send me a particular estimate by mail."

The next day he arrived in Providence: "In Company with John Innes Clark, who was very liberal, kind to me, and candid, I applied to Amy [Almy] and Brown for a view of their Factory, but on candidly professing my object, I was refused admittance. My friend J. I. Clark then went with me to Olney's and to Humphrey's Factories, in which I saw all I was in pursuit of — Viz. Water-frames and a Doubling and Twisting frame at work, and a Stretching frame, which differs from a Mule in nothing, except giving a *slight* twist, capable of being again drawn in a Mule. All the information I received here corroborates Ralston's estimate or rather shows it to be short of the fact. The following are Tables of measures, weights, and manufacturers' prices: —

"Bed Ticking 52 to 54 yards in a piece — made of yarn No. 8 to 10 — $\frac{7}{8}$ yd. wide — 2 yards in length per lb. — Manufacturers' price 80 cts. pr. yd.

"Cotton stripes — 40 to 50 yards in a piece — made of yarn No. 10 to 12 — $\frac{3}{4}$ yd. wide — $3\frac{3}{8}$ yd. in length per lb. — Manufacturers' price 4 cts. pr. yd.

"Cotton loss about 10 pr. cent in manufacturing, that is 100 lbs. of cotton will make about 90 lbs. of yarn or finished goods.

"Visited the Governor of this state, James Fenner, who kindly promised to give me, by mail every information on the subject of manufactures which I might wish, and which he could collect."

Here Isaac Briggs' investigation really ends. The rest of his account simply relates the events of his homeward journey. The whole trip requires six weeks and the entire amount of expenses he estimates at $194.32½ of which he considers $107.70 to be his own "private" expenses, leaving only $86.62½ to be charged to the investigation. One amusing entry recorded only four days after he left home was as follows: "This day a good beaver hat, the only one I had, was snatched from my head by the wind, blown overboard, and lost. It cost me $13, and was now worth $8." Two days later, while in Philadelphia, he purchased a new hat for $6, evidently not a beaver.

There are numerous estimates on the cost of building and running a cotton factory; of these the following seems to be the most complete:

ESTIMATE, FOR A COTTON FACTORY, OF 4128 SPINDLES, REQUIRING A BUILDING 110 FEET BY 44, 5 STORIES HIGH

Spinning Machinery & its Cost

2 Picking Machines (30 inches feed each) @ 500	$1,000.
35 Carding Engines { 14 Breakers 22 inches & 21 Finishers, 24 inches } @ 300	10,500.
4 Drawing Frames (6 heads each) 24 heads @ 40.....	960.
2 Roving Stretchers (a substitute for Roving & Winding) of 96 spindles each....@ 720	1,440.
6 Stretching Frames of 120 Spindles ea @ 720	4,320.
10 Mules of 240 Spindles ea = 2400 Sp^s. @ 3	7,200.
24 Throssels of 72 Spindles ea = 1,728 Sp^s @ 6.50.....	11,232.
4,128 Spindles	
Contingencies: Cans, Bobbins, Leather &c. &c.....	3,348.
Which is nearly $10 P^r. Spindle	$40,000.

[Cost of Spinning Machinery, carried over ..... $40,000.]

Weaving Machinery & its Cost

1 Spooling Machine of 60 Spindles	$90.	
4 Warping Mills.... @ 60	240.	
1 Beaming Machine	200.	
1 Machine for winding pirns [?]	90.	
72 Power looms.... @ 70	5,040.	
Contingencies.....	1,340.	7,000.

Finishing Machinery & its Probable Cost

Singeing Cylinder, Furnace, beams &c	
Bleaching Apparatus, Callender &c. — say	5,000.
Whole Cost of Machinery	$52,000.
Mill buildings to Cost	18,000.
Steam Engine (36 horse power)	10,000.
Castings & Mill work	10,000.
A suitable lot	10,000.
Permanent Capital	$100,000.

Arrangement of Machinery

1st Ground Floor, Weaving.
2d Floor, Carding, Drawing & Roving.
3d Floor, Picking, Stretching, Spooling, Warping &c.
4th Floor, Mule Spinning.
5th Floor, Throssel Spinning.

Classification of Hands & Wages Pr Week

1	Carding Master	$15.	
2	Men to attend the Picking Machines .... @ 6	12.	
9	Boys to attend Cards.... @ 2.....	18.	
12	Boys, or Girls to attend Drawing Frames .... @ 2 .	24.	
2	Men to attend Roving Stretchers.... @ 8	16.	
2	Boys....do....do.... @ 2.....	4.	
6	Men....do....Stretching Frames @ 8	48.	
6	Boys....do....do.... @ 2.....	12.	
40	Wages for Preparation		$149.
1	Spinning Master.....	$ 13.	
24	Throssel Spinners, Boys or Girls.... @ 3	72.	
10	Mule Spinners, Men.... @ 10.....	100.	
10	" Piecers, Boys.... @ 2.....	20.	
45	Wages for Spinning		205.
			$354.

[Wages for Preparation and Spinning, carried over ..... $354.]

1	Weaving Master	$ 14.	
2	Spoolers, Boys .... @ 2	4.	
4	Warpers, lads .... @ 6	24.	
1	Sizer & Beamer	12.	
2	Winders of pirns [?] .... @ 2	4.	
36	Weavers, Girls .... @ 3	108.	
46	Wages for Weaving		166.

Wages for Finishing — Viz. for Singeing, Bleaching, callendering & putting up

10	Men averaging .... @ 8		80.
141	Number of hands. Amount of Wages		$600.

PRODUCT

1728	Throssel Spindles @ 12 hanks Pr Spindle Pr week is of yarn No 20	1037 lbs for Warp.
2400	Mule Spindles @ 9½ hanks Pr Spindle Pr week is of yarn No 22	1037 for Filling.
4128	Spindles to spin Pr week	2074 lbs yarn
	Waste 15 Pr Cent add	366
	The Sum is the Amount of Cotton Pr week ...	2440 lbs required

1037 lbs Warp No 20 & 1037 Weft. No 22 } laid in a 10 hundred reed will make of Muslin 35 inches wide when finished 8275 yds which @ 40¢ is worth ..... $3310.

EXPENSES TO BE DEDUCTED

Commissions on sales @ 5 Pr cent		$165.50
2440 lbs Cotton @ 25¢		610.
Wages of Preparation .... 7¢ + Pr lb.	$149.	
of Spinning .... 10¢ − Pr lb.	205.	
of Weaving .... 8¢ + Pr lb.	166.	
of Finishing .... 4¢ − Pr lb.	80.	
Whole Wages .... 29¢ Pr lb.		600.
Waste, equal to .... 4⅜¢		
		$1375.50

[Total product Pr week in dollars, carried over ..... $3310.]

[Expenses to be deducted, carried over ..... $1375.50]

Flour &c for sizing	14.50		
Potash &c for Bleaching	50.		
Fuel for Engine, Singeing &c. 40 bus. Pr day or 240 bus. coal Pr week @ 50¢	120.		
Wear & tear, of machinery 15 Pr cent Pr annum on $52,000	150.		
		334.50	
Deduct Amount of expenses.....			1710.
Gross Profit Pr week, carried up			$1600.
Multiply by.....			50.
The Product is gross Annual profit			$80,000.
Annual expenses to be deducted.			
Interest on $100,000, the whole capital ...	$6000.		
Insurance on $60,000, amount perishable by fire @ 3 Pr cent	1800.		
Salary of Engineer	800.		
" of Superintendent	2400.		
			11,000.
			$69,000.
Suppose 6 months interval always to exist between the purchase of raw material and sale of finished goods — in that time $15,000 are laid out in purchasing cotton & $35,000 in current expenses — Interest on this is.....			1,500.
Nt Annual profit, above Interest			$67,500.
Suppose one year to elapse in erecting the works and in that time $100,000 are invested in permanent capital and 6 months more to elapse before the concern receives any return, in which time $50,000 more are laid out in Cotton and current expenses. Then there must be taken out of the profit of the Second year the interest and expenses incident to the First. Viz.			
18 Months interest on Permanent Capital		$9,000.	
6 " " on $50,000		1,500.	
Salary of Superintendent		2,400.	
			$12,900.

* * * * * * * * * * * * * *

Something of the actual price of mill machinery may be learned from the memorandum dated May 25, 1808:

Stephen Dod engages to make for me by the end of the 9 mo. next, the following machinery at annexed price; Viz.

1 Breaking Card	$200
1 Finishing Card	200
1 Drawing Frame	125
1 Mule, 204 Spindles	408
	$933

The following as soon afterwards as possible:

1 Picker	60
1 Finishing Card	200
1 Stretching Frame, 72 Spindles @ $4.	288
1 Throstle Frame 48 Spindles	144
	$692

By 1809 Isaac Briggs, in association with others, had established a cotton mill at Triadelphia, Maryland. In 1815 he was negotiating to sell the establishment to Elisha Riggs. Evidently the project had been less profitable than he had hoped.

Also in 1809 Isaac Briggs was making every effort to interest a group of men in Georgia in the establishment of a cotton mill on the north fork of Broad River where he had a one thousand acre tract of land which he had acquired in 1787. He includes all the arguments which he thinks would sell his idea — he describes the excellent situation in regard to water power, navigation by river to the sea, proximity to a "probable" post road, iron ore near at hand for the building of the machinery, and above all he dwells on the advantage of the cheapness of the raw cotton due to the fact that packing and transportation costs are saved.

Finally he states with great emphasis that an establishment which would in New England yield an annual profit of $35,000 would in Georgia yield an annual profit of $60,000. Just how he comes to this conclusion is not perfectly clear. Apparently the project was not developed, though doubtless a century later would find a thriving cotton mill on the same site.

Business Records from Mexico City

SOMEWHAT over a year ago the Society received, through the kindness of Mr. Charles P. Howland, Director of Research, Council of Foreign Relations, New York City, a fine collection of Mexican manuscripts. The material falls into two distinct groups — 113 volumes, the records of Alfred and Andres Lefebvre, who were engaged in both retail and wholesale trade in Mexico City, and 27 volumes, the records of the Hacienda de San Bartolomé del Monte, Provincia de Tlaxcala, Mexico, which was owned by Don Manuel Fernandez del Castillo y de Mier. This article will concern the records of Alfred and Andres Lefebvre, which cover the years 1863–1900.

Alfred Lefebvre was, during his early career, a wholesale and retail merchant in Paris. He was apparently a man of both ambition and intelligence. What drew him to Mexico City to establish a branch of the Paris firm is not certain. Was it because of family connections there which offered an opening to him; did he see in a new country unusual opportunity; or was it that the political situation arising out of the French intervention in Mexico and Maximilian's accession to the throne made him think the French might be favored there? These are three possibilities — perhaps all played a part. The records do not indicate at just what date Alfred Lefebvre arrived in Mexico, but they do show that he was certainly there in 1863. It is possible that he was at first associated in business with S. Savary, who was apparently his brother-in-law, and who conducted a store in Mexico City under the firm name "S. Savary et Daume." However, it could not have been long before Lefebvre had established himself as an independent merchant.

His business was diversified in the services which he performed. He was, first of all, a wholesale and retail merchant, supplying his customers with nearly every possible need. He conducted import and export trade of considerable volume with houses in Paris, Le Havre, Nantes, Zurich, Hamburg, Strassburg, London, Manchester, Glasgow, New York, Philadelphia, Chicago, and San Francisco. The list of imports was as varied as the list of commodities handled in his stores. The exports consisted chiefly of maize, jalap, vanilla, tobacco, quitch-grass, furs and caoutchouc. It also appears that he performed some of the functions of a banker; he maintained open accounts for numerous individuals, some of whom were not even

the regular customers. They sent him money to be deposited to their accounts, and sent orders for payments, similar to checks, to be charged against those accounts. Further, he was a manufacturer. He established a factory for the making of parasols, sunshades, and umbrellas, which he sold through his own stores as well as through other dealers. Finally it seems clear from the records that Lefebvre continued to maintain his store in Paris. There are frequent references to the "Maison de Paris" in contrast with the "Maison de Mexique." His representatives in Paris wrote by every mail to inform Lefebvre concerning all details in the conduct of the business there.

Returning to a further discussion of the wholesale and retail enterprise in Mexico City, it is interesting to note some of the outstanding characteristics of his business policy. Price lists indicate that the firm did not quote the same prices to all customers. All sales on credit had to be secured by promissory notes signed by the purchaser, and shipments were not made unless the note was first registered in Lefebvre's books.

The credit situation in general was poor. R. G. Dunn furnished Lefebvre with periodical information about the standing of customers. Some of these letters are rather amusing. In one, half a page is devoted to a statement that a certain customer is a good credit risk, but a footnote says that he killed someone and the police are looking for him. Lefebvre often asked his agents for information concerning the health of various customers, always reminding the agent that, in case of the illness of the customer, the customer's merchandise, not yet paid for, should be seized at once. An interest rate of 12% was charged against sales on credit and 24% interest on bills due but not paid. One policy followed by Lefebvre was that of sending his clerks to competing stores to ascertain quality and price of merchandise — the modern system of comparative shopping. In one letter Lefebvre reveals something of his knowledge of business psychology. He instructs his purchasing agent to purchase goods from the Indians in units of dozens rather than pounds, for he says, "The Indians feel that the dozen is a much more just measurement of what they bring to sell."

Perhaps the greatest obstacle to business progress was the lack of banking facilities. For the most part, there was no reliance on shifting of credit to balance transfer of goods. Actual money (gold and silver) passed from hand to hand and was transported to distant parts of the country for purchase of goods. This was a costly

means of payment due partly to high rate of risk and to the slowness with which transactions were made. For some time there were no reputable express companies in Mexico and it was necessary to rely on trustworthy individuals to transport the gold from place to place. For this reason the entrance of the Wells Fargo Company into Mexico was greatly welcomed and the success of the company was almost immediate.

Lefebvre's business grew rapidly. By 1880 he had at least five permanent stores scattered throughout Mexico City. In addition to these stores he opened booths in the public markets whenever some festivity was to take place in the city. These were only opened for a limited number of days and for only four or five hours a day. It was several times suggested to Lefebvre that he open branches of his store in other cities, but this he was determined not to do, because of difficulties of management and control. His stores in Mexico City, however, handled a volume of merchandise so great that he finally installed an elevator to facilitate the handling of goods.

Lefebvre's son Andres was born in Paris and received his education partly in France and partly in Mexico. He spoke French, Spanish, and English readily, and in general appears to have had an excellent education. At eighteen he entered his father's business and was soon taking complete responsibility in Mexico whenever his father went to Paris to attend to the business there. Eventually he took over the entire management of the business. Andres married the daughter of Don Manuel Fernandez del Castillo y de Mier, a member of one of the most distinguished families of Mexico. Through his wife, he inherited the Hacienda de San Bartolomé del Monte. The records of this hacienda comprise the second part of this collection of Mexican manuscripts and will furnish the subject of a brief article in the June Bulletin.

Finding List for Manuscript Material in Baker Library

BAKER LIBRARY, with the assistance of the Business Historical Society, has brought together the first systematic collection of *business manuscripts*. Many libraries and historical societies have accumulated a few business manuscripts incidentally, but their chief interest, thus far, has been biographical source material or source material for political history. This is the first time business history has constituted the object in view.

The first set of records acquired, and still one of the best, was secured in 1916 by Arthur H. Cole, now Administrative Curator of the Library, while he was still a student at Harvard. This was the Samuel Slater Collection, comprising over one thousand volumes and constituting a reservoir of information concerning the early history of the textile industry. Further acquisition of material was at first hampered by lack of room and funds available for cataloging. Since the building of Baker Library the collection has grown rapidly, though little cataloging of manuscripts was possible prior to 1929. In the last three years all of the material has been made available; a system of cataloging manuscripts has been devised; and finally, a finding list of all the manuscript material in Baker Library has just been completed and is soon to be published. The list has been compiled by Margaret Ronzone Cusick, who has also had charge of the cataloging of manuscript material.

The list, arranged as it is by industries, points out clearly the strength and weakness in the collection. The records of more than five hundred different firms and individuals have been brought together. As might be expected, the material is predominantly from New England. It has always been the policy of the Library to encourage each section of the country to collect its own manuscripts. Although the Library possesses a few very valuable collections from other localities, the chief aim has been the building up of a collection which would be truly representative of the economic development of New England. For this reason it is not surprising that such industries as textile manufacturing, shoe manufacturing, shipping, foreign marketing, and banking should be those for which the material is most complete. On the other hand, records relating to lumbering, fishing, whaling, and shipbuilding are deficient and should be augmented, for these, too, are basic industries in New England.

In Memoriam

THROUGH the death of Charles L. Edgar on April 14, 1932, the Business Historical Society lost one of its most valued members, and a founder of the organization. Mr. Edgar's membership has been characterized throughout by his generous coöperation in furthering the interests of the Society.

Mr. Edgar was born at Griggstown, New Jersey, December 23, 1860, son of Thomas and Annie Veghte Edgar. After graduation from Rutgers College in 1882, his first position was with Thomas A. Edison, who had only recently become a national figure in the field of electrical science. In September, 1887, Mr. Edgar was sent to Boston as general superintendent of the Edison Electric Illuminating Company. He remained with the organization until the time of his death, having been president of the company since 1900.

During the war Mr. Edgar was an associate member of the naval consulting board and a consulting engineer for the Bureau of Mines for the Department of the Interior. He was a member of a special committee of twenty-one appointed several years ago to investigate the question of municipal ownership abroad. In 1927 Rutgers College conferred upon him the degree of doctor of science and the same year Tufts College awarded him an honorary degree of doctor of laws. He was trustee of Rutgers College and numerous business organizations.

Besides his widow he leaves a son, Leavitt L. Edgar, and two grandchildren. His son is vice-president of the Edison Electric Illuminating Company of Boston.

Secretary's Column

ACQUISITIONS

Since the last publication of the Bulletin the Society has received and gratefully acknowledges the following acquisitions:

From Arthur W. Blackman, D. F. Munroe Company, Boston, Blackman, Arthur W., *The Rejuvenation of Gregory and Company.*

From Charles P. Capen, Industrial Club of St. Louis, St. Louis, Missouri, *Two Years of Industrial Progress in the St. Louis Industrial District; Chemical and Mineral Resources of the St. Louis Industrial District;* and miscellaneous advertising material.

From George W. Clough, President, The Richards Company, Boston, *American Metal Market*, 1899–1930; *Comparative Statistics*, 1897–1913, compiled by the Metallgesellschaft, Frankfort, Germany.

From Elizabeth C. Coburn, Lowell, Massachusetts, statement of accounts and receipts in the administration of the estate of Timothy Coburn, deceased.

From Aaron Davis, San Diego, California, account book of John Claflin of Milford, Mass., 1808–1809.

From W. J. Donald, American Management Association, New York City, *The Management Index*, January, 1923–January, 1932.

From Henry Ford, Dearborn, Michigan, published data relative to the opening of the Edison Institute on October 21, 1929.

From Seth T. Gano, Gauley Coal Land Company, Boston, Lanier, Henry Wysham, *A Century of Banking in New York, 1822–1922*; miscellaneous publications of Poor and Moody.

From General Electric Company, Cleveland, Ohio, a collection of historical photographs of the late Thomas Alva Edison and his activities.

From Paul B. Halstead, Cotton-Textile Institute, Inc., New York City, Fifth Annual Report; Hines, Walker D., *Textile Industry and the Anti-Trust Laws* and *Promotion of Stabilization through Keeping Production in Balance with Demand*.

From F. A. Howard, South Easton, Massachusetts, *A New Chapter in an Old Story*, Remington Arms Company, 1816–1912.

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